

REMARKS

Claims 1-29 remain in the application. Reconsideration and allowance are respectfully requested.

Claim Rejections under 35 U.S.C. § 112

Claims 1-29 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicants traverse this rejection and respectfully assert that the subject matter of the rejected claims was described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

In particular, the Examiner appears to be taking position that it is not clear from the specification that a checking predictor can include global, bimodal, return stack buffer and indirect prediction components as claimed. The Examiner also considers these limitations, which were added by amendment, to represent new matter. Applicants point out however, that the specification clearly states that the predictions generated by the next-line predictor "closely approximate the predictions of a more complex checking predictor" (par. 0027). Thus, one skilled in the art would conclude that the inventors, at the time the application was filed, considered the claimed checking predictions to have a content that is similar to that of the above-described next-line predictions. For at least the above reasons, claims 1-29 satisfy the written description requirement. Accordingly, Applicants request that the Examiner withdraw the instant rejection.

Claims 1-29 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Applicants traverse this rejection and respectfully assert that the subject matter of the rejected claims was described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the claimed invention.

In particular, checking predictors and predictions were well known in the art in December of 2003. For example, Applicants have already directed the Examiner's attention to U.S. Patent No. 5,283,873 to Steely, Jr. et al. ("Steely"), which is representative of the state of the art at least as early as 1994 and provides a detailed explanation of one approach to a conventional prediction

check stage. Against this backdrop, the specification of the present application teaches that the checking predictors 86 shown in FIG. 2 of the present application can be implemented in a branch prediction architecture 84 of a processor 82, as shown in FIG. 9 of the present application. Moreover, the specification of the present application provides additional design constraints, such as the general components of the checking predictions (e.g., global, bimodal, etc., discussed above), the prediction latency of the checking predictors (e.g., three clock cycles; par. 0020), and the fact that the checking predictions may be independent from one another (e.g., par. 0020). In view of the above teachings, Applicants assert that one skilled in the art would have readily been able to implement the claimed invention. For at least the above reasons, claims 1-29 satisfy the enablement requirement. Accordingly, Applicants request that the Examiner withdraw the instant rejection.

Claims 1-29 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants traverse this rejection and respectfully assert that the rejected claims particularly point out and distinctly claim the subject matter that Applicants regard as the claimed invention.

In particular, the Examiner alleges that the Applicants may be claiming "to have conceived of/invented all forms of checking predictor which are more complex than their next line predictor," and therefore that the examiner "cannot determine, with any clarity, the limits to applicants' claimed invention." Office Action, p. 5. Applicants assert that the limits of the claims can be found in the claims themselves. Indeed, it is clear that the claims in fact recite many more limitations than merely the checking predictions. For example, claim 1 calls for a current next-line prediction and a previous next line prediction, as well as a unique interrelationship between these predictions and the claimed checking predictions. For at least the above reasons, claims 1-29 are not indefinite. Accordingly, Applicants request that the Examiner withdraw the instant rejection.

CONCLUSION

Applicants respectfully submit that this application is in condition for allowance. A Notice of Allowance is earnestly solicited.

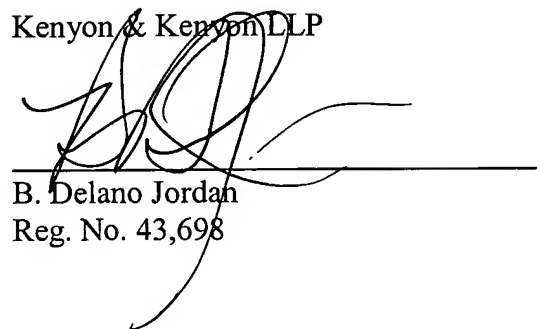
The Examiner is invited to contact Shawn O'Dowd at (202) 220-4255 to discuss any matter concerning this application. The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 11-0600.

Respectfully submitted,

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